ABSTRACT

An MRI system is realized which can always take an image under optimum conditions following the concentration of a contrast agent injected into a body and changed at every moment with time in the body, thereby obtaining a blood vessel image with higher quality even in a zone of a measurement period other than the time when the concentration of the injected contrast agent is peaked.

A flip angle is changed following a contrast agent concentration b(t) as indicated by a curve 102. During a period Da in which the contrast agent concentration b(t) is gradually increased, a flip angle FA is increased following the contrast agent concentration b(t). During a period Db in which the contrast agent concentration b(t) is gradually decreased, the flip angle is gradually reduced. By controlling the flip angle following the contrast agent concentration b(t) so that the flip angle becomes an Ernst's angle at which signal intensity is maximized, the blood vessel image with higher quality can be obtained even in the zone of the measurement period other than the time when the concentration of the injected contrast agent is peaked.